

direction, and proves that he maintained his name for the Central European insect, even to the extent of sinking his friend's name to his own previous one. I hold, therefore, that *podalirius* must stand as hithertofore, and would conclude with the hope that Dr. Verity's suggestions may be referred to the National Nomenclature Subcommittee.

Notes on *Erebia gavarniensis*, n.sp., and some forms of *Erebia manto*.

By B. C. S. WARREN, F.E.S.

Flying on the Grammont, on the 16th of last August, with seven other species of *Erebia*, I came across *E. manto* in profusion. A week later, on the Rochers de Naye, I found it again in great numbers. From these two localities I obtained a fine and varied series. In all 38 ♂s and 30 ♀s.

A very superficial examination showed that slightly more than half of these were typical *E. manto*. While endeavouring to separate the various forms I found in this series, I referred to Mr. Wheeler's "*Butts. of Switz.*" Here there are three forms mentioned: the var. *pyrrhula*, Frey., and abs. *bubastis*, Meissner, and *caecilia*, Hübn.

With the first two I was not concerned, as none of my specimens approached either, and of the ab. *caecilia* I had four specimens which I referred to it without hesitation. But there were many other forms in my series, so I turned to Mr. Lowe's interesting article in the *Entomologist* (vol. xlv., p. 144).

He here mentions four forms, but is principally concerned with two—the vars. *vojesiaca*, Christ, and *trajanus*, Hormuzaki. The former Mr. Lowe states, according to Staudinger, to be a "form of the ♀ without basal spots on the underside hindwing, otherwise as in the type," but adds that Rühl gives a fuller description, noting it as being "larger than the type, with the markings of the forewings yellow and broader, and seldom containing black spots." These descriptions were not very satisfactory, but as I had not any specimens which seemed to merit the name *vojesiaca* under either description, I left the matter alone.

The second form which Mr. Lowe found commonly at Champéry, was a form of ♀ entirely without markings on the underside (the "underside" being in italics one may conclude the upperside was typical), which he first thought an undescribed variety, but then refers to var. *trajanus*, Hormuz. Here, again, Staudinger's description leaves considerable doubt as to what *trajanus* might be. There are none among my specimens which would answer to the description, "underside entirely without markings, upperside normal"; but I have four ♀s in which, on the underside of the hindwings, the median band is only represented by a few small isolated spots, the basal spots scarcely visible, being suffused by the ground colour, the forewings underside typical, and the markings of the upperside as in the type, but slightly reduced. These might possibly come under the name *trajanus*, according to Staudinger, but if they did Mr. Lowe's specimens could not. Again, I have a few fine ♂s with the median row of spots on the underside of the hindwings reduced to three or four tiny spots, scarcely visible, all the other markings are present as in the

type, but greatly reduced in size; these, too, *might* possibly be a ♂ form of the var. *trajanus* (but again it was only "possibly"). So far, the confusion only seemed to be getting worse. Of the remaining two forms mentioned by Mr. Lowe, I was not concerned with the ab. *pyrrhula*, having nothing approaching it among my captures, and about the var. *caecilia*, one did not think there could be any uncertainty. I have four specimens (as already noted) two ♂s and two ♀s, which I was sure were to be referred to this var.

One ♂ is entirely without the rust-coloured bands and black eye-spots, both on the upper- and underside. The other ♂ and two ♀s are nearly so. I was putting these specimens on one side, with a feeling of relief, when another difficulty arose.

I have in my collection a series of the beautiful *Erebia* from the Pyrenees, which in all recent publications is mentioned as the var. *caecilia* of *E. manto*. On placing my specimens from the Grammont beside those from the Pyrenees, it was at once apparent that both forms could not possibly be placed under the same name. The Swiss specimens were exactly like the type, but without the spots and bands; *i.e.*, the *whole* of the underside of the ♂ is suffused with the beautiful mahogany colour which is so conspicuous in the type ♂. In the larger Pyrenean race there is *no trace* of this whatever. My Pyrenean specimens, too, were absolutely fresh when caught, and this makes the want of the colouring all the more striking. A further careful comparison of the Pyrenean specimens with typical *manto*, and of the neurulation of both, left little or no doubt in my mind that I had here two separate species.

There was only one thing left to do. I wrote to Mr. Wheeler and asked him if he could get, and send me, the original descriptions of the vars. *caecilia*, Hüb., *trajanus*, Hormuzaki, and *pyrrhula*, Frey, (his diagnosis of the latter, in his *Butts. of Switz.*, leaving some uncertainty as to how closely this var. approached var. *caecilia*). This troublesome job, in spite of his many engagements, he most kindly did; and also sent me some most useful extracts from papers by Dr. Chapman and Mr. Elwes (*Trans. Ent. Soc. Lond.*, 1898) bearing on this subject.

To take the var. *caecilia* first, the following is a translation of the original description, which is given under the heading *Pap. pyrrha, manto*, Esp.:—" *Caecilia*, Hubn. (pl. xlvi., figs. 213, 214).—One finds examples of this species in which the macular bands are partially or entirely unicolorous. I have figured one of these varieties, and a less pronounced one is *atratus*, Esp."

Mr. Wheeler tells me that the figure is nearly black on the upper-side, with rather chequered fringes, and that the underside is not so black, and with a small patch of reddish on the forewings. Fringes yellowish-brown.

Though Hübner's is not a very minute description, it is perfectly obvious that the central European form is the one which he intended to name. He actually says it inhabits the "German Alps," and the statement, "partially or entirely," in referring to the bands and spots, shows that he was not even thinking about the Pyrenean race. The Pyrenean race, therefore, has no claim to the name *caecilia* or to any connection with it, and is apparently left in want of a name.

I find that both Dr. Chapman and Mr. Elwes, dealt with this race

fifteen years ago, yet, during the last few years, it has been (whenever mentioned in the magazine articles) spoken of as var. *caecilia*. The following extract is from Mr. Elwes' paper.

“ ab. *caecilia*, Hübn., 213-14, Text, p. 35. Alps.

(*Supra fere vel rarius tota nigra.*)

var. *constans*, *caecilia*, Dup., i., 49, 6, 7. Pyrenees.

(*♂ et ♀ supra tota nigra, ♀ infra minus fusca notata.*)”

He also states (p. 171), that he is *not* giving it a new name, not being sure whether *manto* does not exist in the Pyrenees. Thus, while suggesting separation, Mr. Elwes seems to class this race as a Pyrenean form of *caecilia*, while in his definition he does not even mention the extraordinary difference of colour in the ♂ underside. Seitz has made a curious mistake in applying the name *constans*, Elwes, to a Pyrenean form of *manto*, since the latter* gave no name to it at all, but merely stated that while *caecilia* is an aberration in the Alps, it is a constant variety in the Pyrenees.

Dr. Chapman, without naming it, separated this race from *manto*, on the strength of the genitalia, and though this is not always sufficient proof by itself (as was shown not so long ago by certain species of *Melitaea*), in this case there are so many other constant characteristics, practically sufficient in themselves to give it specific rank, that one may take it as conclusive.

The following description of this Pyrenean *Erebia*, is made from 28 specimens in my collection; sixteen ♂s and twelve ♀s, all taken in the Val d'Ossue, Gavarnie (where it is exceedingly abundant), on July 20th and 22nd, 1911.

♂.—Slightly larger than *E. manto*, varying from 46mm. to 48mm. (*manto* 40mm. to 44mm.).

Upperside: Ground colour velvety black, *entirely* without markings.

Underside: Same black ground colour as the upperside, but without the velvety gloss. *No trace whatever* of the mahogany suffusion, (which covers the whole surface of the underside of the wings in *manto*), giving it the dull blackish-brown appearance, which is so striking a characteristic in this species. Occasionally a *very* small rust-coloured spot at the apex of the forewings. Only two out of the sixteen ♂s in my possession show this, and in these it is confined to the underside. The fringes of both fore- and hindwings very much less conspicuous than in *manto*, owing to their being of the same shade as the ground colour of the wings.

♀.—Very constant in size, and larger than *manto*: 50mm. (*manto* ♀ varying from 42mm. to 48mm.)

Upperside: Usually *entirely* black, without bands or spots, as in the ♂; but occasionally with two small black apical eye-spots present, the spots in these instances are somewhat smaller than the corresponding ones in *manto*. The ground colour on the whole darker.

Underside: Frequently completely without markings, though never so unicolorous as in the ♂; more usually with one or two *very* small yellow spots on the hindwings; no basal spots; on the forewings a square rust-coloured spot at the apex; no eye-spots. The whole tone of the ground colour much duller than in *manto*.

In the neuration the following are the principal differences:—

Pyrenean race, forewings: All the nervures slightly more curved than in *manto*. Discoidal cell a little more than half the length of the

wing, the connecting nervule at the end of the cell, between nervures 4 and 6, nearly straight, except for a small sharp angle where nervure 5 joins it. Nervures 6 and 8 springing from the costal angle of the discoidal cell, but *not* touching at this point. Cell one-third as broad as the length. In *manto* the discoidal cell is just half the length of the wing, the connecting nervule between nervures 4 and 6 curved; convex towards the base of the wing, the junction of nervure 5 causing no angle. Nervures 6 and 8 joined at their base, springing from the same spot in the costal angle of the discoidal cell. Cell a little more than one-third as broad as the length.

Hindwing: Discoidal cell much less sharply angled than in *manto*. Nervures 6 and 7 rising close together, and ending further apart (at the margin of the wing) than in *manto*. Nervure 5 consequently rises much further from 6 in the Pyrenean race. Discoidal cell slightly narrower than half its length, while in *manto* it is a little broader than half its length.

The various characteristics of size, markings, tone of ground colour, are all exceedingly constant, and if taken with the structural ones, *viz.*, the neuriation and Dr. Chapman's verdict on the genitalia, can leave no possible doubt that this Pyrenean *Erebia* is a distinct species. As *constans*, Seitz (not Elwes), would have to be taken as the name of a dark Pyrenean form of *manto*, if such were found to exist, the Pyrenean species is still unnamed, and I propose the name *gararniensis*, n. sp., for it.

We now come to the var. *trajanus*, Hormuzaki. The following is a slightly abbreviated translation of the original description.

"Var. ♀ *trajanus*, Hormuz.—The characteristic marking which separates our variety from the type (*manto*) lies in the ground colour of the underside.

"Forewings a light red-brown, dusted with yellow-grey towards the apex and costa

"Hindwings light greenish-grey, quite different from the ground colour of the forewings, resembling the colouring of the underside hindwing of *E. arete*. This colour is thickly spread over almost the whole surface of the wings, and there is a pronounced covering of greenish-gray hairs near the base All the spots are distinctly bordered, in both specimens, not with reddish-yellow, as in the type, but with pale whitish-yellow."

This description (which was made from two ♀s taken in Bukovina, on chalk) shows that none of Mr. Lowe's specimens, or mine, are in any way connected with the var. *trajanus*, which must be a magnificent variety, and is probably a purely Eastern one. The reference to the colour which surrounds the spots on the underside of the hindwings, at once excludes Mr. Lowe's specimens, as the ground colour does mine, and probably his also; for he makes no mention of this being unusual. One cannot, therefore, do better than to refer Mr. Lowe's specimens to the name he suggested for them in the beginning, var. *indigena*, which he described as "a ♀ form, underside entirely without markings, upperside as in the type." My four ♀s which (as already noted) have the median band on the underside of the hindwings only represented by a few small isolated spots, the basal ones scarcely visible, being suffused by the ground colour, the forewings underside typical, and all markings of the upperside similar to the type, but

slightly reduced, must be considered a transition to var. *indigenus*, Lowe.

The four ♂s, already described (see commencement), which I thought might belong to the same form as the ♀s, are excluded from this, since placing the latter as transitions to var. *indigenus*. Failing to find any more concise name for them, I must regard them as a transition to var. *caecilia*.

There is still another fine ab. of the ♀ which has not, so far, been mentioned; in this the band on the upperside having completely disappeared, leaves the black eye-spots without any rust-coloured surroundings. These spots are *double* the normal size on both fore- and hindwings. The underside is quite typical. I have two specimens of it, one from the Grammont, and one from the Rochers de Naye. No ♂ of this form has, as yet, come under my notice; but I have remarked that among the ♂s, as soon as any loss of the bands occurs on the upperside, a similar reduction takes place on the underside. It is therefore probable that this ab. will only be found among the ♀s. Up to the present it does not seem to have been noticed, so I suggest the name of ab. *punctata* n. ab., for it.

Aenigmatias blattoides, Meinert, captured in Scotland.

By HORACE DONISTHORPE, F.Z.S., F.E.S.

On July 21st I captured a specimen of this very rare aberrant Phorid in a nest of *Formica fusca*, situated under a stone near Forest Lodge at Nethy Bridge, in Inverness-shire. It was observed running about in the galleries of the nest, and was very rapid in its movements. It is apterous and superficially very like a tiny *Blatta* in appearance. When placed in a tube the anal segments of the insect's body were observed to be rapidly exerted and retracted. On sending it to Mr. J. E. Collin he returned it to me as the above species.

Aenigmatias blattoides was first taken by Meinert¹ in Denmark, in a nest of *Formica fusca*. He took two specimens near Copenhagen, the first is in the University Museum there, the other appears to have been lost. Wasmann² next bred a specimen in one of his observation nests of *Formica rufibarbis* in 1902. In 1906 he found a specimen in a nest of *F. rufibarbis* under a stone in a garden at Luxemburg. Under the same stone *Lasius niger* was present and it may be mentioned that in the first case he had given *L. niger* cocoons to the *rufibarbis*. His third example was found in 1905 in the same garden, this time in a pure *rufibarbis* nest. In 1908 he observed two freshly hatched specimens in an observation nest of *F. exsecta*, to which he had given a number of *F. fusca* cocoons. It seems most probable that the true host of the fly is *F. fusca* (and its sub-species *F. rufibarbis*), the Dipteron emerging from the *fusca* cocoons. As the parasite is so seldom found, it is most likely as Wasmann remarks, that when hatched it leaves the nest and only re-enters to lay the eggs. Dahl believes that the ♂ of *Aenigmatias* is *Platyphora lubbocki*, Verrall³, and, however this may be, it is noteworthy that all the specimens found of the former are ♀♀ and of the latter ♂♂. I have been looking for *Platyphora* for 20 years, and at last, this year, I bred two specimens in my *F.*

¹ *Ent. Meddel.*, ii., pp. 212-226 (1890).

² *Biolog. Central.*, xxviii., pp. 728-730 (1908).

³ *Linn. Soc. Journ. Zool.*, xiii., 260 (1878).